

WHAT IS CLAIMED IS:

- sub
933
1. A movable camera apparatus comprising a camera unit and a pan head comprising a movable portion and a fixed portion, said movable camera apparatus including:
- 5 first and second support portions erected from said movable portion for supporting said camera unit from the opposite sides thereof for tilt rotation;
- a first circuit board disposed in said camera unit;
- 10 a second circuit board disposed on said fixed portion; and
- a connecting member for connecting said first and second circuit boards together;
- 15 wherein the center of gravity of said camera unit is disposed near the center line of said tilt rotation, and tilt rotation driving means is provided on said first support portion, and said connecting member is disposed on said second support portion.
- 20 2. A movable camera apparatus according to Claim 1, wherein said first circuit board is disposed in said second support portion side in the camera unit.
- 25 3. A movable camera apparatus according to Claim 1, wherein said camera unit includes a lens unit, and said first circuit board is disposed on the upper side or the lower side of said lens unit in the camera unit.

Sub
034

4. A movable camera apparatus according to Claim 1, wherein said connecting member is a flexible member and is formed into a voluted shape about the vicinity of the center line of said tilt rotation.

5

5. A movable camera apparatus according to Claim 1, wherein said support portions are of structure having an opening portion in the outer side thereof, and a case member for covering said opening portion is mountable on said opening portion.

10

6. A movable camera apparatus comprising a camera unit and a pan head comprising a movable portion and a fixed portion, said movable camera apparatus including:

15

first and second support portions erected from said movable portion for supporting said camera unit from the opposite sides thereof for tilt rotation;

a first circuit board disposed in said camera unit;

20

a second circuit board disposed on said fixed portion; and

a connecting member for connecting said first and second circuit boards together;

25

wherein said camera unit and said movable portion are shaped so that even if said camera unit is rotated to a nearly vertical position about a tilt rotary shaft, the surface of said camera unit may not

interfere with the surface of said movable portion, and tilt rotation driving means is provided on said first support portion, and said connecting member is disposed on said second support portion.

5

7. A movable camera apparatus according to Claim 6, wherein said first circuit board is disposed in said second support portion side in the camera unit.

10

8. A movable camera apparatus according to Claim 6, wherein said camera unit includes a lens unit and said first circuit board is disposed on the upper side or the lower side of said lens unit in the camera unit.

15

*Sub
a35* 9. A movable camera apparatus according to Claim 6, wherein said connecting member is a flexible member and is formed into a voluted shape about the vicinity of the center line of said tilt rotation.

20

10. A movable camera apparatus according to Claim 6, wherein said support portions are of structure having an opening portion in the outer side thereof, and a case member for covering said opening portion is mountable on said opening portion.

25

11. A movable camera apparatus comprising a camera unit and a pan head comprising a movable portion

and a fixed portion, said movable camera apparatus including:

first and second support portions erected from said movable portion for supporting said camera unit from the opposite sides thereof for tilt rotation;

a first circuit board disposed in said camera unit;

a second circuit board disposed on said fixed portion; and

a connecting member for connecting said first and second circuit boards together;

wherein tilt rotation driving means is provided in said first support portion, said connecting member is disposed in said second support portion, and said connecting member is disposed in a voluted shape substantially about the rotary shaft of the tilt rotation.

12. A movable camera apparatus according to Claim 11, wherein said first circuit board is disposed in said second support portion side in the camera unit.

13. A movable camera apparatus according to Claim 11, wherein said camera unit includes a lens unit and said first circuit board is disposed on the upper side or the lower side of said lens unit in the camera unit.

5 14. A movable camera apparatus according to Claim 11, wherein said connecting member is a flexible member, and is disposed in a voluted shape in a direction to create a rotating force by the elasticity thereof in a direction opposite to the direction of rotation of the camera unit by gravity.

10 15. A movable camera apparatus according to Claim 11, wherein said support portions are of structure having an opening portion in the outer side thereof, and a case member for covering said opening portion is mountable on said opening portion.

15 16. A movable camera according to claim 11, guide means is provided in said second support portion for guiding said connecting member disposed in a voluted shape.

20 17. A movable camera apparatus comprising a camera unit and a pan head comprising a movable portion and a fixed portion, and capable of being pan-driven, wherein said movable portion and said fixed portion have engagement means engaged with each other for pan rotation, and the engaged portions of said engagement means are formed of a resin material high in lubricity.

18. A movable camera apparatus comprising a

5 for covering said mounting means is removably disposed.

19. A movable camera apparatus according to Claim 18, wherein said mounting means is a threaded hole.

[illegible]